MODIS Technical Team Meeting
Thursday, September 19, 2002
Building 33, Room E 125

Vince Salomonson chaired the meeting. In attendance were Barbara Conboy, Eric Vermote, Chris Justice, Bill Barnes, Steve Kempler, Ed Masuoka, Shaida Johnston, Jack Xiong, and Wayne Esaias, with Yolanda Harvey taking the minutes.

1.0 Upcoming Events

- 34th COSPAR Scientific Assembly, October 10-19, 2002, Houston, TX (abstract deadline past)
- MODIS Outreach Workshop on Land Surface Radiation and Snow and Ice Products, October 21-22, 2002, Boston, MA
- Pecora 15 & Land Satellite Information IV Symposium, November 12-15, 2002, Denver, CO (abstract deadline past)
- EOS Investigator Working Group Meeting, November 18-20, Ellicott City, MD

2.0 Meeting Minutes

2.1 General Discussion

Barnes reported that he, Vince Salomonson, and Jack Xiong met with Jim Simpson and Jim Dodge. A good discussion was held including exchange of knowledge concerning MODIS data characteristics and clarification of data content and issues.

Kempler reported that he also met with Drs. Simpson and Dodge. The first subject they discussed was missing data. He was seeing a " –2" value in the L1B (not L1A) data. This was clarified by Alice Isaacman. Simpson said that he would like to continue work with Alice on the missing data from L1A. Xiong cautioned them to be clear whether they were taking about flags or the data themselves, because "-2" is a flag value, not data. Kempler said that Dr. Simpson says he saw the value in each band.

Kempler said that Simpson would like to obtain 15 TB of data. They can fill the order, but it will take time. A request like this is useful in that it highlights the challenge to ESDIS and indicates that the DAAC needs all of its capacity. Esaias said that it's not a spurious order either, because Simpson actually goes into the data at that level. Kempler said that they will send the data to him by DLT. The DAAC will do some sample runs to see how long filling the order will take (probably a couple of months). Vermote asked if the order is going to be global, subset, or something else, and Kempler replied that it will be L1B, probably continuous data over the 15 TB. Johnston asked whether the data will be collection 3 or 4, and Kempler said that it will be Collection 3 because Simpson wants older data, and they will give it to him as they process it. Kempler said that Simpson also gave them a lot of feedback and suggestions about the DAAC website.

Justice said that he got an email from Australia wondering why there are frequently missing direct broadcast data from 21 to 25 degrees. Masuoka said that DB doesn't work

in that area because they can't interfere with DSN. Salomonson said that NASA is responsible for DSN, so Justice may want to talk to Paul Ondrus. Conboy said that she will give Justice Ondrus' email address.

Salomonson said that Esaias is to send the Oceans summary of the MODIS Science Team meeting to Harvey for review and submission to the Earth Observer. All other summaries are in.

Salomonson said that, along with the scientific efforts of the MODIS Science Team members to do science and applications, we/MODIS should strive to work with other individuals or organizations who could profit from assimilating data into models or related scientific studies in that it helps to indicate and promote the scientific utility of the MODIS products.

Esaias said that Bob Evans and others provided science talks for a short course of study in Italy. These talks are going to go up on the website on Friday, and they did an excellent job. Salomonson asked about other people's talks, and Vermote said that they could put his materials up. Esaias said that the Oceans CD was very well received.

Vermote reported that he found the source of the problems with the snowcover results on the Introductory MODIS Multidisciplinary CD; there was a bug in the software, and everything now looks really good. Salomonson said that he would like to take a look at it

Salomonson reported that the Tea and Poster Session held in Building 28 at GSFC on September 18 went well. He said that there were several MODIS posters that gave this series of presentation a good start for the year. They were also able to show visualizations on the HDTV, which was a big plus. He added that the Goddard Science Visualization Studio has moved, and they now have a lot more space for displays.

Conboy reported that she is still waiting on some input for Data Product Handbook.

2.2 Instrument Status

2.2.1 Aqua MODIS

Barnes reported that MCST is continuing to look at the missing commands problem in Aqua. Thome has submitted an analysis that says that the first 8 bands of Aqua data show differences of 3-4% when compared with his surface sensors, and isn't sure why the Science Team Meeting figures of 8-9% were so high.

Barnes also reported that they are seeing a 3-4K offset between the thermal bands of Aqua and Terra, so they think that there may be some differences in calibration. Esaias said that Oceans is also seeing some differences, but not as large.

2.2.2 Terra MODIS

Barnes reported that they switched the formatter from A to B on Tuesday September 17, 2002. The switch was successful and had no problems. As for the Aqua formatter, they are going to put in a command so that if it goes into a safe hold, it won't turn off the

formatter (to avoid a shift in Oceans data). Esaias asked if the patch is already in Terra, and Barnes said yes.

Barnes reported that Alice Isaacman has updated four of the major L1B Users Guide documents, and they are ready for review. These include: 1) the MODIS LUT Information Guide, 2) the MODIS Level 1B Product User's Guide, 3) the MODIS L1B Data Dictionary and 4) the MODIS L1BHigh Level Design Document. Once they are reviewed, they will go up on the website. He added that these contain more detailed and current information than the L1B ATBD.

2.3 DAAC

Kempler reported that Oceans processing is going well, and all Oceans data have been pushed. One tape was lost because of a tape drive failure. Johnston is to take a lead on developing a plan/process for the DAAC getting backup data from SDST.

Kempler reported that regular processing is on schedule. There will be a change to the scheduled downtime. The day has been Wednesdays and it affects users ordering data, etc. The ECS will *have* to finish all maintenance by noon from now on for the DAAC to get back up. Kempler said that their big concerns are the Land Orbit back up and the vendor backup. He said that they will take a while, but they need to be done.

2.4 MODAPS

Masuoka reported that the March-June LUT date has moved from 10/31 to 11/2. He said that a lot of the SIN PGEs have come in, and ISIN is in testing now. So far everything looks good, and will be done by 11/30 (one day later than scheduled).

Masuoka reported that the Atmospheres LUT change plan for PGEO6 is around 9/20. Also, the L3 Atmospheres will reprocess in mid October. There are lots of changes cueing up. He said that the changes should not change the schedule. The Land-Sea Mask from Boston needs to go up to Wisconsin. Vermote said that they are working on that now, and Johnston said that it would probably occur sometime during the week of 9/23.

2.5 Oceans

Esaias showed a number of nLw results, saying that they look very good. He pointed out significant events in the data, such as formatter side changes. The data he showed is everything in Collection 4 up to September 18, 2002. He pointed out that the South Pacific Oligotrophic nLws will need some adjustment in Collection 5. The number of pixels varies because the Southern Ocean is so big, and when the Sun comes up, ocean asymmetry causes losses in some area. He noted that Carder's algorithm seems not to be as affected, and he wants to figure out why. Esaias said that they are very excited about these data and are very happy to see these results. What they've declared valid is essentially the B-side data thru 2002. He noted that the year 2001 data is what they make movie loops out of. Salomonson asked what stage of validation they've declared, and Esaias replied that they are declaring Stage 2 because they've examined a number of places and done some comparisons, but some portions have lower uncertainty levels than

others. Salomonson said that the validated data is from November 2000 to March 2002, and affirmed that those dates are right.

2.6 Land
Justice reported that the Land Group is getting ready for the next Outreach workshop in Boston.

3.0 Action Items

3.1 New Action Items
3.1.1 Esaias to forward draft of Oceans Science Team Meeting summary to Harvey for review and submission to the Earth Observer.

3.1.2 Johnston to take a lead on developing a plan/process for the DAAC getting backup data from SDST.

3.2 Old Action Items
3.2.1 Technical team to discuss further the issue of predicted ephemeris data and how to improve it.
Status: Open.
Ed Masuoka and Robert Wolfe plan to meet with the Terra Flight Operations Team to see if they can run definitive ephemeris 2-4 times per day. The context for this issue is to provide better geolocation information for things like fire front tracking and similar issues.

3.2.2 Science Team to update the Terra Data Products Handbook and submit edits and new gray scale imagery to Barbara Conboy within a few weeks.
Status: Open.
Some members of the Oceans, Land, and Atmospheres are still reviewing; Abbott, Barnes, Gordon, Huete, King, Menzel (for Mod 35), Strahler, Vermote, Gao, Townshend, Carder, Kaufman, and Wan have completed their revisions.

3.2.3 Justice to get back to the Technical Team about whether or not the land-water mask will be changed.
Status: Open.